- (Currently Amended) A synthetic construct which is a peptide display carrier package (PDCP), said construct comprising a complex of a recombinant single-stranded polynucleotide and a chimeric protein, wherein
  - i) the chimeric protein has
    - a) a nucleotide binding portion which comprises a binding domain of a nuclear steroid receptor; and
    - b) a target peptide portion displayed externally on the package,
  - ii) said recombinant polynucleotide comprises
    - a) a chimeric protein-encoding portion which encodes the chimeric protein of the complex; and
    - b) a nucleotide sequence motif which is specifically bound by said nucleotide binding portion of the chimeric protein,

and wherein the nucleotide binding portion of the chimeric protein is bound to the nucleotide sequence motif of the recombinant polynucleotide, and wherein the chimeric protein-encoding portion of the recombinant polynucleotide is not bound by the nucleotide binding portion of the chimeric protein, and wherein the chimeric protein-encoding portion of the recombinant polynucleotide is protected from degradation by a binding moiety which is a <a href="https://www.wiral">wiral</a> protein and which is bound non-specifically to the polynucleotide irrespective of nucleotide sequence, and wherein said construct is produced in a host cell transformed with said recombinant polynucleotide and extruded therefrom without lysis of the host cell.

- 2. (Cancelled).
- (Original) A construct as claimed in Claim 1, wherein the binding moiety is a viral coat protein.
- (Original) A construct as claimed in Claim 1, wherein said target peptide portion is displayed externally on the package.
- 5. (Original) A construct as claimed in Claim 1 wherein said recombinant polynucleotide includes a linker sequence between the nucleotide sequence encoding the nucleotide binding portion and the nucleotide sequence encoding the target peptide portion.
- 6. (Previously Presented) A construct as claimed in Claim 1 wherein said recombinant polynucleotide has two or more nucleotide sequence motifs wherein each of the nucleotide sequence motifs is bound by the nucleotide binding portion of the chimeric protein.
- 7. (Original) A construct as claimed in Claim 1 wherein said nucleotide-binding portion is a DNA binding domain of an oestrogen or progesterone receptor.
- 8. (Cancelled).
- (Original) A construct as claimed in Claim 1 wherein said target peptide portion is located at the N and/or C terminal of the chimeric protein.
- 10. (Cancelled).
- 11. (Cancelled).
- 12. (Cancelled).

- 13. (Cancelled). 14. (Cancelled). 15. (Cancelled). 16. (Cancelled). 17. (Cancelled). 18. (Cancelled). 19. (Cancelled). 20. (Cancelled). 21. (Cancelled). 22. (Cancelled). 23. (Cancelled).
- 24. (Currently Amended) A synthetic construct for use as peptide display carrier package (PDCP), said construct comprising a recombinant polynucleotide-chimeric protein complex wherein the chimeric protein has a nucleotide binding portion which comprises a binding domain of a nuclear steroid receptor and a target peptide portion, wherein said recombinant polynucleotide is a single-stranded polynucleotide and comprises a chimeric-protein encoding portion and a nucleotide sequence motif which is specifically bound by said nucleotide binding portion, and wherein the chimeric protein-encoding portion of the recombinant polynucleotide not bound by the chimeric protein nucleotide binding portion is protected from degradation by a binding

Attorney Docket No. 40544.00101

moiety which is a <u>viral</u> protein and which is bound to the polynucleotide irrespective of the nucleotide sequence, wherein said binding moiety is a viral coat protein, wherein said target peptide portion is displayed externally on the package, wherein said recombinant polynucleotide includes a linker sequence between the nucleotide sequence encoding the nucleotide binding portion and the nucleotide sequence encoding the target peptide portion, wherein said recombinant polynucleotide has two or more nucleotide sequence motifs at least one is bound by the nucleotide binding portion of the chimeric protein, wherein said nucleotide binding portion is a DNA binding domain of an estrogen or progesterone receptor.

- 25. (Currently Amended) A synthetic construct for use as peptide display carrier package (PDCP), said construct comprising a recombinant polynucleotidechimeric protein complex wherein the chimeric protein has a nucleotide binding portion which comprises a binding domain of a nuclear steroid receptor and a target peptide portion, wherein said recombinant polynucleotide comprises a chimeric-protein encoding portion and a nucleotide sequence motif which is specifically bound by said nucleotide binding portion, and wherein the chimeric protein-encoding portion of the recombinant polynucleotide not bound by the chimeric protein nucleotide binding portion is protected from degradation by a binding moiety which is a viral protein and which is bound to the polynucleotide irrespective of the nucleotide sequence, wherein said recombinant polynucleotide is bound to said chimeric protein as single stranded DNA, wherein said target peptide portion is located at the N and/or C terminal of the chimeric protein and said construct is produced in a host cell transformed with said recombinant polynucleotide and extruded therefrom without lysis of the host cell.
- 26. (Previously Presented) A construct as claimed in Claim 1 wherein the binding moiety is a bacteriophage coat protein.